

0500/37RC

#2



OIPE

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/045,992

DATE: 01/28/2002

TIME: 14:14:39

Input Set : A:\053689-5006-01.ST25.txt

Output Set: N:\CRF3\01282002\J045992.raw

ENTERED

2 <110> APPLICANT: LINDNER, Volkhard  
 3 FRIESEL, Robert E.  
 5 <120> TITLE OF INVENTION: COMPOSITIONS, METHODS AND KITS RELATING TO REMODELIN  
 7 <130> FILE REFERENCE: 053689-5006-01  
 C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/045,992  
 C--> 9 <141> CURRENT FILING DATE: 2001-10-19  
 9 <150> PRIOR APPLICATION NUMBER: US 09/692,081  
 10 <151> PRIOR FILING DATE: 2000-10-19  
 12 <160> NUMBER OF SEQ ID NOS: 9  
 14 <170> SOFTWARE: PatentIn version 3.1  
 16 <210> SEQ ID NO: 1  
 17 <211> LENGTH: 1192  
 18 <212> TYPE: DNA  
 19 <213> ORGANISM: Rattus sp.  
 21 <400> SEQUENCE: 1  
 22 atgcgggccgg ccgcagagct gggccagacg ctgagcaggg ccgggctctg ccgacccctt 60  
 23 tgccctcctgc tctgcgcttc gcagctaccg cacacgatgc acccccaagg ccgcgcgcgc 120  
 24 tccccacagc tgctgctcgg cctcttcctt gtgctactgc tgcttctgca gctgtccgcg 180  
 25 ccgtccagcg cctctgagaa tcccaagggtg aagcaaaaag cgctgatccg gcagagggaa 240  
 26 gtggttagacc tgtataatgg gatgtgccta caaggaccag caggagttcc tggtcgcgat 300  
 27 gggagccctg gggccaatgg cattcctggc acaccgggaa tcccaggteg ggatggattc 360  
 28 aaaggagaga aaggggagtg cttaagggaa agctttgagg aatcctggac cccaaactac 420  
 29 aagcagtgtt catggagttc acttaattat ggcatagatc ttgggaaaat tgcggaatgt 480  
 30 acattcacaa agatgcgac caacagcgct cttegagttc tgttcagtg ctcgcttcgg 540  
 31 ctcaaagtca ggaatgcttg ctgtcaacgc tggatattta cctttaatgg agctgaatgt 600  
 32 tcaggacctc tccccattga agctatcatc tatctggacc aaggaagccc tgagttaaatt 660  
 33 tcaactatta atattcatcg tacttccctc gtggaaggac tctgtgaagg gattggtgct 720  
 34 ggactggtag acgtggccat ctgggtcggc acctgttcag attaccccaa aggagacgct 780  
 35 tctactgggt ggaattctgt gtccgcacac atcattgaag aactaccaa ataaagcccc 840  
 36 tgaaggtttc attccctgcc tcatttactt gttaaataca gcctctggat gggtcattta 900  
 37 aatgacattt cagaagtcac ttatgtgctc agccaaatga aaaagcaaag ttaaatacgt 960  
 38 ttacagacca aagtgtgac tcacacttta agatctagca ttatccattt tatttcaacc 1020  
 39 aaagatggtt tcaggatttt atttctcatt gattactttt tgagcctata taccggaatg 1080  
 40 ctgttatagt ctttaatat tctactgtt gacattttga aacatataaa agttatgtct 1140  
 41 ttgtaagagc tgtatagaat tattttatat gttaaataaa tgcttcaaac aa 1192  
 43 <210> SEQ ID NO: 2  
 44 <211> LENGTH: 245  
 45 <212> TYPE: PRT  
 46 <213> ORGANISM: Rattus sp.  
 48 <400> SEQUENCE: 2  
 50 Met His Pro Gln Gly Arg Ala Ala Ser Pro Gln Leu Leu Leu Gly Leu  
 51 1 5 10 15  
 53 Phe Leu Val Leu Leu Leu Leu Gln Leu Ser Ala Pro Ser Ser Ala

## RAW SEQUENCE LISTING

DATE: 01/28/2002

PATENT APPLICATION: US/10/045,992

TIME: 14:14:39

Input Set : A:\053689-5006-01.ST25.txt

Output Set: N:\CRF3\01282002\J045992.raw

```

54          20          25          30
56 Ser Glu Asn Pro Lys Val Lys Gln Lys Ala Leu Ile Arg Gln Arg Glu
57          35          40          45
59 Val Val Asp Leu Tyr Asn Gly Met Cys Leu Gln Gly Pro Ala Gly Val
60          50          55          60
62 Pro Gly Arg Asp Gly Ser Pro Gly Ala Asn Gly Ile Pro Gly Thr Pro
63 65          70          75          80
65 Gly Ile Pro Gly Arg Asp Gly Phe Lys Gly Glu Lys Gly Glu Cys Leu
66          85          90          95
68 Arg Glu Ser Phe Glu Glu Ser Trp Thr Pro Asn Tyr Lys Gln Cys Ser
69          100          105          110
71 Trp Ser Ser Leu Asn Tyr Gly Ile Asp Leu Gly Lys Ile Ala Glu Cys
72          115          120          125
74 Thr Phe Thr Lys Met Arg Ser Asn Ser Ala Leu Arg Val Leu Phe Ser
75          130          135          140
77 Gly Ser Leu Arg Leu Lys Cys Arg Asn Ala Cys Cys Gln Arg Trp Tyr
78 145          150          155          160
80 Phe Thr Phe Asn Gly Ala Glu Cys Ser Gly Pro Leu Pro Ile Glu Ala
81          165          170          175
83 Ile Ile Tyr Leu Asp Gln Gly Ser Pro Glu Leu Asn Ser Thr Ile Asn
84          180          185          190
86 Ile His Arg Thr Ser Ser Val Glu Gly Leu Cys Glu Gly Ile Gly Ala
87          195          200          205
89 Gly Leu Val Asp Val Ala Ile Trp Val Gly Thr Cys Ser Asp Tyr Pro
90          210          215          220
92 Lys Gly Asp Ala Ser Thr Gly Trp Asn Ser Val Ser Arg Ile Ile Ile
93 225          230          235          240
95 Glu Glu Leu Pro Lys
96          245
98 <210> SEQ ID NO: 3
99 <211> LENGTH: 1220
100 <212> TYPE: DNA
101 <213> ORGANISM: Homo sapiens
103 <400> SEQUENCE: 3
104 acgagggcgg cctcggagcg cggcggagcc agacgctgac cacgttcctc tcctcggctc 60
105 cctccgcctc cagctccgcg ctgcccggca gccgggagcc atgcgacccc agggccccgc 120
106 cgctccccg cagcggctcc gcggcctcct gctgctcctg ctgctgcagc tgcccgcgcc 180
107 gtcgagcgcc tctgagatcc ccaaggggaa gcaaaaggcg cagctccggc agagggaggt 240
108 ggtggacctg tataatggaa tgtgcttaca agggccagca ggagtgcctg gtcgagacgg 300
109 gagccctggg gccaatggca ttccgggtac acctgggata ccaggtcggg atggattcaa 360
110 aggagaaaag ggggaatgtc tgaggggaaag ctttgaggag tcctggacac ccaactacaa 420
111 gcagtgttca tggagtccat tgaattatgg catagatctt gggaaaattg cggagtgtac 480
112 atttacaagg atgcgttcaa atagtgtctt aagagttttg ttcagtggct cacttcggct 540
113 aaaatgcaga aatgcatgct gtcagcgttg gtatttcaca ttcaatggag ctgaatgttc 600
114 aggacctctt cccattgaag ctataattta tttggaccac ggaagccctg aaatgaattc 660
115 aacaattaat attcatcgca cttcttctgt ggaaggactt tgtgaaggaa ttggtgctgg 720
116 attagtggat gttgctatct gggttggcac ttgttcagat tacccaaaag gagatgcttc 780
117 tactggatgg aattcagttt ctgcgcatcat tattgaagaa ctacccaaaat aaatgcttta 840
118 attttcattt gctacctctt tttttattat gccttggaat ggttcactta aatgacattt 900

```

## RAW SEQUENCE LISTING

DATE: 01/28/2002

PATENT APPLICATION: US/10/045,992

TIME: 14:14:39

Input Set : A:\053689-5006-01.ST25.txt

Output Set: N:\CRF3\01282002\J045992.raw

```

119 taaataagtt tatgtataca tctgaatgaa aagcaaagct aaatatgttt acagacccaaa      960
120 gtgtgatttc acactgtttt taaatctagc attattcatt ttgcttcaat caaaagtgg      1020
121 ttcaatattt ttttagttgg ttagaatact ttcttcatag tcacattctc tcaacctata      1080
122 atttggaata ttgttggtgt cttttgtttt ttctcttagt atagcatttt taaaaaata      1140
123 taaaagctac caatctttgt acaatttgta aatgttaaga atttttttta tatctgttaa      1200
124 ataaaaatta tttccaacaa      1220
126 <210> SEQ ID NO: 4
127 <211> LENGTH: 243
128 <212> TYPE: PRT
129 <213> ORGANISM: Homo sapiens
131 <400> SEQUENCE: 4
133 Met Arg Pro Gln Gly Pro Ala Ala Ser Pro Gln Arg Leu Arg Gly Leu
134 1 5 10 15
136 Leu Leu Leu Leu Leu Leu Gln Leu Pro Ala Pro Ser Ser Ala Ser Glu
137 20 25 30
139 Ile Pro Lys Gly Lys Gln Lys Ala Gln Leu Arg Gln Arg Glu Val Val
140 35 40 45
142 Asp Leu Tyr Asn Gly Met Cys Leu Gln Gly Pro Ala Gly Val Pro Gly
143 50 55 60
145 Arg Asp Gly Ser Pro Gly Ala Asn Gly Ile Pro Gly Thr Pro Gly Ile
146 65 70 75 80
148 Pro Gly Arg Asp Gly Phe Lys Gly Glu Lys Gly Glu Cys Leu Arg Glu
149 85 90 95
151 Ser Phe Glu Glu Ser Trp Thr Pro Asn Tyr Lys Gln Cys Ser Trp Ser
152 100 105 110
154 Ser Leu Asn Tyr Gly Ile Asp Leu Gly Lys Ile Ala Glu Cys Thr Phe
155 115 120 125
157 Thr Lys Met Arg Ser Asn Ser Ala Leu Arg Val Leu Phe Ser Gly Ser
158 130 135 140
160 Leu Arg Leu Lys Cys Arg Asn Ala Cys Cys Gln Arg Trp Tyr Phe Thr
161 145 150 155 160
163 Phe Asn Gly Ala Glu Cys Ser Gly Pro Leu Pro Ile Glu Ala Ile Ile
164 165 170 175
166 Tyr Leu Asp Gln Gly Ser Pro Glu Met Asn Ser Thr Ile Asn Ile His
167 180 185 190
169 Arg Thr Ser Ser Val Glu Gly Leu Cys Glu Gly Ile Gly Ala Gly Leu
170 195 200 205
172 Val Asp Val Ala Ile Trp Val Gly Thr Cys Ser Asp Tyr Pro Lys Gly
173 210 215 220
175 Asp Ala Ser Thr Gly Trp Asn Ser Val Ser Arg Ile Ile Glu Glu
176 225 230 235 240
178 Leu Pro Lys
181 <210> SEQ ID NO: 5
182 <211> LENGTH: 277
183 <212> TYPE: PRT
184 <213> ORGANISM: Rattus sp.
186 <400> SEQUENCE: 5
188 Met Arg Pro Ala Ala Glu Leu Gly Gln Thr Leu Ser Arg Ala Gly Leu
189 1 5 10 15

```

## RAW SEQUENCE LISTING

DATE: 01/28/2002

PATENT APPLICATION: US/10/045,992

TIME: 14:14:39

Input Set : A:\053689-5006-01.ST25.txt

Output Set: N:\CRF3\01282002\J045992.raw

```

191 Cys Arg Pro Leu Cys Leu Leu Leu Cys Ala Ser Gln Leu Pro His Thr
192          20          25          30
194 Met His Pro Gln Gly Arg Ala Ala Ser Pro Gln Leu Leu Leu Gly Leu
195          35          40          45
197 Phe Leu Val Leu Leu Leu Leu Gln Leu Ser Ala Pro Ser Ser Ala
198          50          55          60
200 Ser Glu Asn Pro Lys Val Lys Gln Lys Ala Leu Ile Arg Gln Arg Glu
201 65          70          75          80
203 Val Val Asp Leu Tyr Asn Gly Met Cys Leu Gln Gly Pro Ala Gly Val
204          85          90          95
206 Pro Gly Arg Asp Gly Ser Pro Gly Ala Asn Gly Ile Pro Gly Thr Pro
207          100         105         110
209 Gly Ile Pro Gly Arg Asp Gly Phe Lys Gly Glu Lys Gly Glu Cys Leu
210          115         120         125
212 Arg Glu Ser Phe Glu Glu Ser Trp Thr Pro Asn Tyr Lys Gln Cys Ser
213          130         135         140
215 Trp Ser Ser Leu Asn Tyr Gly Ile Asp Leu Gly Lys Ile Ala Glu Cys
216 145          150         155         160
218 Thr Phe Thr Lys Met Arg Ser Asn Ser Ala Leu Arg Val Leu Phe Ser
219          165         170         175
221 Gly Ser Leu Arg Leu Lys Cys Arg Asn Ala Cys Cys Gln Arg Trp Tyr
222          180         185         190
224 Phe Thr Phe Asn Gly Ala Glu Cys Ser Gly Pro Leu Pro Ile Glu Ala
225          195         200         205
227 Ile Ile Tyr Leu Asp Gln Gly Ser Pro Glu Leu Asn Ser Thr Ile Asn
228          210         215         220
230 Ile His Arg Thr Ser Ser Val Glu Gly Leu Cys Glu Gly Ile Gly Ala
231 225          230         235         240
233 Gly Leu Val Asp Val Ala Ile Trp Val Gly Thr Cys Ser Asp Tyr Pro
234          245         250         255
236 Lys Gly Asp Ala Ser Thr Gly Trp Asn Ser Val Ser Arg Ile Ile Ile
237          260         265         270
239 Glu Glu Leu Pro Lys
240          275

```

242 &lt;210&gt; SEQ ID NO: 6

243 &lt;211&gt; LENGTH: 403

244 &lt;212&gt; TYPE: RNA

245 &lt;213&gt; ORGANISM: Artificial Sequence

247 &lt;220&gt; FEATURE:

248 <223> OTHER INFORMATION: Description of Artificial Sequence: REMODELIN antisense  
ribonucleoprobe

250 &lt;400&gt; SEQUENCE: 6

```

251 ccaccagua gaagcgucuc cuuuggggua aucugaacag gugccgaccc agauggccac      60
252 gucuaccagu ccagcaccaa ucccuucaca gaguccuucc acggaggaag uacgaugaau      120
253 auuaauaguu gaauuaacu cagggcuucc uugguccaga uagaugauag cuucaauggg      180
254 aagagguccu gaacauucag cuccauuaaa gguaaaauac cagcguugac agcaagcauu      240
255 ccugcauuug agccgaagcg agccacugaa cagaacucga agagcgugcu uggaucgcau      300
256 cuuugugaau guacauuccg cauuuuuccc aagaucuaug ccauaauuaa gugaacucca      360
257 ugaacacugc uuguaguug ggguccagga uuccucaaaag cuu                        403
259 <210> SEQ ID NO: 7

```

## RAW SEQUENCE LISTING

DATE: 01/28/2002

PATENT APPLICATION: US/10/045,992

TIME: 14:14:39

Input Set : A:\053689-5006-01.ST25.txt

Output Set: N:\CRF3\01282002\J045992.raw

260 <211> LENGTH: 15  
 261 <212> TYPE: PRT  
 262 <213> ORGANISM: Artificial Sequence  
 264 <220> FEATURE:  
 265 <223> OTHER INFORMATION: Description of Artificial Sequence:carboxy-terminal amino  
 acids of REMODELIN  
 267 <400> SEQUENCE: 7  
 269 Gly Trp Asn Ser Val Ser Arg Ile Ile Ile Glu Glu Leu Pro Lys  
 270 1 5 10 15  
 272 <210> SEQ ID NO: 8  
 273 <211> LENGTH: 24  
 274 <212> TYPE: PRT  
 275 <213> ORGANISM: Artificial Sequence  
 277 <220> FEATURE:  
 278 <223> OTHER INFORMATION: Description of Artificial Sequence:insulin signal peptide  
 280 <400> SEQUENCE: 8  
 282 Met Ala Leu Leu Val His Phe Leu Pro Leu Leu Ala Leu Ala Leu  
 283 1 5 10 15  
 285 Trp Glu Pro Lys Pro Thr Gln Ala  
 286 20  
 288 <210> SEQ ID NO: 9  
 289 <211> LENGTH: 734  
 290 <212> TYPE: DNA  
 291 <213> ORGANISM: Artificial Sequence  
 293 <220> FEATURE:  
 294 <223> OTHER INFORMATION: Description of Artificial Sequence:myc-tagged REMODELIN  
 construct  
 296 <400> SEQUENCE: 9  
 297 atggccccca aggcgcgccc gcctccccac agctgctgct cggcctcttc cttgtgctac 60  
 298 tgctgcttct gcagctgtcc gcgccgtcca gcgcctctga gaatcccaag gtgaagcaaa 120  
 299 aagcgctgat ccggcagagg gaagtggtag acctgtataa tgggatgtgc ctacaaggac 180  
 300 cagcaggagt tcttggtcgc gatgggagcc ctggggccaa tggcattcct ggcacaccgg 240  
 301 gaatcccagg tcgggatgga ttcaaaggag agaaagggga gtgcttaagg gaaagctttg 300  
 302 aggaatcctg gaccccaaac tacaagcagt gttcattggag ttcaactaat tatggcatag 360  
 303 atcttgggaa aattgcggaa tgtacattca caaagatgcg atccaacagc gctcttcgag 420  
 304 ttctgttcag tggctcgctt cggtcaaat gcaggaatgc ttgctgtcaa cgctgggtatt 480  
 305 ttacctttaa tggagctgaa tgttcaggac ctcttcccat tgaagctatc atctatctgg 540  
 306 accaaggaag ccctgagtta aattcaacta ttaatattca tcgtacttcc tccgtggaag 600  
 307 gactctgtga agggattggg gctggactgg tagacgtggc catctgggtc ggcacctgtt 660  
 308 cagattaccc caaaggagac gcttctactg ggtggaattc tgtgtcccgc atcatcattg 720  
 309 aagaactacc aaaa 734

VERIFICATION SUMMARY

DATE: 01/28/2002

PATENT APPLICATION: US/10/045,992

TIME: 14:14:40

Input Set : A:\053689-5006-01.ST25.txt

Output Set: N:\CRF3\01282002\J045992.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application No

L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date